

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 02ST25E	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP02/10598	International filing date (day/month/year) 20/09/2002	Priority date (day/month/year) 27/09/2001
International Patent Classification (IPC) or national classification and IPC H01L21/00		
Applicant LPE SPA et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 15/04/2003	Date of completion of this report 18.06.2003
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Crampin, N Telephone No. +49 89 2399 2566



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP02/10598

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-9 as originally filed

Claims, No.:

1-20 as originally filed

Drawings, sheets:

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

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☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-20
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-20
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-20
	No:	Claims	

2. Citations and explanations
see separate sheet

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: WO 00 48234 A

D2: US-A-6 102 788

- 1.1 D1 is considered to be the closest prior art, disclosing the subject-matter of claim 1 of the present application with the exception of the feature that "the disk is such as to entirely cover the wafer". The tool disclosed in D1 is open over the central region of the held wafer.

There is no reason in D1 to modify the disclosed tool in the manner claimed in the present application. In particular, D1 does not discuss disadvantages associated with the tool. Furthermore, although D2 discloses a suction tool for holding and transporting a wafer which comprises a disk which entirely covers the held wafer, this tool is designed for CMP and is designed to contact the wafer **across the whole surface** thereof. The skilled person would not consider combining these teachings since a holder which must contact the wafer only at the wafer edges has different design constraints to one which contacts the wafer across the whole wafer.

The subject-matter of claim 1 of the present application therefore satisfies the requirements of Articles 33(2) and (3) PCT with respect to the available prior art.

- 1.2 Independent claim 9, which claims a station including the tool of claim 1, is novel and inventive for the reasons given for claim 1 in item 1.1 above.
- 1.3 Claims 2-8 and 10-20 are dependent on claims 1 and 9 respectively and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Further comments

Although claim 1 is drafted in the two-part form the feature that the suction hole/holes opens/open to the lower side of the disk, whereby, when the wafer is in contact with the lower side of the disk and the suction system is active, the wafer is held by the tool by suction is incorrectly placed in the characterising portion, as it is disclosed in document D1 in combination with the features placed in the preamble (Rule 6.3(b) PCT).

Furthermore, D1 discloses the subject-matter of claim 9 of the present application with the exception that the disk of the tool is such as to entirely cover the wafer. Since this feature is not, however, explicitly specified in claim 9 but included via the reference to claims 1-8, the two-part form is inappropriate and should be replaced by the one-part form.